

**Flood Control Project Maintenance
Levee Inspections**

Fall 2014 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

ST0005 Sutter Maintenance Yard Hamilton Bend	Overall LMA Rating	Total LMA Miles						
	U	3.39						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Trim / Thin Trees	1.95		1.95	57.45%				
Crown Surface / Depressions / Rutting	0.02		0.02	0.59%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.05			
<i>LMA Totals:</i>	1.97	0.00	1.97	58.04%	0.05	0.00	0.00	0.00

**Flood Control Project Maintenance
Levee Inspections
LMA District Cover Sheet
Fall 2014 Levee Inspection Results**

Sutter Maintenance Yard Hamilton Bend

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			U	

** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

* **SPRING INSPECTIONS:** Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2014 Levee Inspection Results

Sutter Maintenance Yard Hamilton Bend

Waterway		Bank	Unit Miles
Unit No. 01 Feather River Hamilton Bend		Right	3.39
	Spring (March - May)	Summer (June - August)	(September - November) Fall Winter (December - February)
Unit Maintenance Rating (Fall Only)			U
Date of Inspection	03/18/2014 - 03/18/2014		11/19/2014 - 11/19/2014
DWR Inspector	Matthew Hoffman		Matthew Hoffman
Accompanied By	Jason Cooper Sutter Maintenance Yard		Jason Cooper Sutter Maintenance Yard

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sutter Maintenance Yard Hamilton Bend

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	11/19/2014 11/19/2014	Matthew Hoffman

LM Start		Rating **	A	Issue No.	7
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Operations & Maintenance Manuals			o	o
DWR ID	DWR_ST0005_01_s_2013_7				
Action/Comments					
Inspector Comments: The O&M manuals are located at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	8
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Emergency Supplies & Equipment			o	o
DWR ID	DWR_ST0005_01_s_2013_8				
Action/Comments					
Inspector Comments: Emergency supplies and equipment are stored at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	9
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Flood Preparedness & Training			o	o
DWR ID	DWR_ST0005_01_s_2013_9				
Action/Comments					
Inspector Comments: Sutter Maintenance Yard employees attend the annual Flood Fight class put on by DWR inspector Bob Duffy.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sutter Maintenance Yard Hamilton Bend

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	0.36	Rating **	M	Issue No.	2
LM End	0.36	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		39.444939 °	39.444939 °	
			-121.641780 °	-121.641780 °	
DWR ID	DWR_ST0005_01_s_2013_2				
Action/Comments					
Repair depressions or ruts in the crown or slope.					

Photo 1 of 1 : FA_2014_ST0005_289_2_20141110_00001.jpg



Deep rut in crown. Repair prior to flood season.

LM Start	0.40	Rating **	M	Issue No.	12
LM End	0.40	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		39.445560 °	39.445560 °	
			-121.641784 °	-121.641784 °	
DWR ID	DWR_ST0005_01_s_2014_12				
Action/Comments					
Repair depressions or ruts in the crown or slope.					

Photo 1 of 1 : FA_2014_ST0005_289_12_20141110_00004.jpg



This photo was taken from the levee crown facing north looking at crown surface depressions caused by vehicle traffic. Spring 2014.

LM Start	0.66	Rating **	A	Issue No.	13
LM End	0.66	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		39.449232 °	39.449232 °	
			-121.641063 °	-121.641063 °	
DWR ID	DWR_ST0005_01_f_2014_13				
Action/Comments					
Add appropriate material and re-grade the levee to bring the crown above the design elevation.					

Photo 1 of 1 : FA_2014_ST0005_289_13_20141124_00010.jpg



This photo was taken from the crown facing north looking at the crown patrol road at an acceptable all weather driving surface. Fall 2014.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	Issue Type N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Levee Inspection Report By Mile - Fall 2014

Sutter Maintenance Yard Hamilton Bend

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	0.80	Rating **	M	Issue No.	1
LM End	0.80	Issue Type +	En	Location *	CR
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		39.451078 °	39.451078 °	
			-121.640773 °	-121.640773 °	
DWR ID	DWR_ST0005_01_f_2014_1				
Action/Comments					
Inspector Comments: FS_ID:13237 EP_NO: 927 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: low spot on WS slope; sink hole or section dug- unable to tell; hole on levee toe. This crossing was listed in the USACE Periodic Inspection as ID# USACE_CESPK_HAM1_2010_a_0029 no issues reported 5/14/2013 SBFCA project recommends removal 5/14/2013 Same as last inspection. FIELD_STRUCT_DESC: Abandoned 10-inch steel pipe through the levee 10.4 feet below the crown. (Permit No. 927) FS Date: 5/14/2013 12:46:25 PM					

No Photos

LM Start	1.04	Rating **	A/W	Issue No.	28
LM End	1.04	Issue Type +	En	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		39.454464 °	39.454464 °	
			-121.640361 °	-121.640361 °	
DWR ID	DWR_ST0005_01_f_2013_28				
Action/Comments					
Building Inspector Comments: Abandoned inlet structure.					

Photo 1 of 1 : FA_2014_ST0005_289_28_20141110_00005.jpg



This photo was taken facing north looking down the levee crown at an old inlet structure. Fall 2013.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	1.05	Rating **	M	Issue No.	3
LM End	1.05	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.454557 °	39.454557 °
				-121.640274 °	-121.640274 °
DWR ID	DWR_ST0005_01_f_2014_3				
Action/Comments					
Inspector Comments: FS_ID:13241 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: abandoned WS gates closed; handles broken; Structure needs to be properly abandoned. This crossing was listed in the USACE Periodic Inspection as ID# USACE_CESPK_HAM1_2010_a_0043 no issues reported 5/14/2013 Same as last inspection. FIELD_STRUCT_DESC: Abandoned Sutter Butte Canal head gate structure, Six 6 by 8 foot concrete culvert 35.8 feet below the crown. Stems on gates are removed and gates are in a closed position. This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Historic Station 47+00). (USACE O&M Manual, 1957) FS Date: 5/14/2013 12:56:41 PM					

No Photos

LM Start	1.17	Rating **	M	Issue No.	6
LM End	1.17	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.456287 °	39.456287 °
				-121.639530 °	-121.639530 °
DWR ID	DWR_ST0005_01_f_2014_6				
Action/Comments					
Inspector Comments: FS_ID:13238 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Abandoned structure: Structure is non-operational, slide gate is completely buried; top of slide gate barely visible from levee 5/14/2013 Same as last inspection. FIELD_STRUCT_DESC: Abandoned 24-inch pipe through the levee 16.5 feet below the crown. Slide gate in CM riser on the waterward slope. No features of structure were found with the exception of slide gate frame. FS Date: 5/14/2013 12:48:22 PM					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 Feather River Hamilton Bend	Right	3.39	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	1.41	Rating **	M	Issue No.	4
LM End	3.18	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Trim / Thin Trees		39.458060 °	39.470433 °	
			-121.636332 °	-121.609200 °	
DWR ID	DWR_ST0005_01_s_ 2013_4				
Action/Comments					
Trim and thin trees to allow visibility of the ground and room to flood fight.					

Photo 1 of 1 : FA_2014_ST0005_289_4_20141110_00002.jpg



L/S trees.

LM Start	1.44	Rating **	M	Issue No.	5
LM End	1.62	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Trim / Thin Trees		39.458255 °	39.459451 °	
			-121.635808 °	-121.633670 °	
DWR ID	DWR_ST0005_01_s_ 2013_5				
Action/Comments					
Trim and thin trees to allow visibility of the ground and room to flood fight.					

Photo 1 of 1 : FA_2014_ST0005_289_5_20141110_00003.jpg



W/S trees.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	11/19/2014 11/19/2014	Matthew Hoffman

LM Start	3.17	Rating **	M	Issue No.	10
LM End	3.17	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.470269 °	39.470269 °
				-121.609229 °	-121.609229 °
DWR ID	DWR_ST0005_01_f_2014_10				
Action/Comments					
Inspector Comments: FS_ID:13242 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Abandoned Structure: WS- reminince of gates and concrete standpipe; LS-reminince of concrete headwall and pump statio5/14/2013 Same as last inspction. FIELD_STRUCT_DESC: Abandoned western canal head gate inlet structure. One (1) of 2 culverts, 8 by 8-foot concrete culverts through the levee 25.0 feet below the crown. Three slide gates on the waterward end. Concrete stairs on the waterward slope. Concrete headwall at both toes. This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Historic Station 170+00). (USACE O&M Manual, 1957) FS Date: 5/14/2013 12:57:57 PM					

No Photos

LM Start	3.17	Rating **	M	Issue No.	11
LM End	3.17	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.470269 °	39.470269 °
				-121.609229 °	-121.609229 °
DWR ID	DWR_ST0005_01_f_2014_11				
Action/Comments					
Inspector Comments: FS_ID:13243 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Abandoned Structure: WS- reminince of gates and concrete standpipe; LS-reminince of concrete headwall and pump statio5/14/2013 Same as last inspection. FIELD_STRUCT_DESC: Abandoned western canal head gate inlet structure. Two (2) of 2 culverts, 8 by 8-foot concrete culverts through the levee 25.0 feet below the crown. Three slide gates on the waterward end. Concrete stairs on the waterward slope. Concrete headwall at both toes. This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Historic Station 170+00). (USACE O&M Manual, 1957) FS Date: 5/14/2013 12:58:44 PM					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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